

Hepatitis C Case Surveillance

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The Indiana State Department of Health (ISDH) is expanding hepatitis C surveillance to identify risk factors for infection and to more effectively target education and prevention. Currently, only **acute** cases are reportable. The ISDH is requesting that local health departments (LHD) report all **chronic** hepatitis C cases as well.

The ISDH is expanding hepatitis C surveillance to include chronic cases for several reasons. First, because chronic cases are not currently reportable, we have no conclusive data on chronic hepatitis C cases in Indiana. Second, the vast majority of hepatitis C cases are chronic. Third, surveillance of chronic cases will allow for better determination of the scope of hepatitis C prevalence and, hence, the burden of infection in Indiana. Finally, surveillance of chronic cases will allow for the identification of new risk factors and more targeted education and prevention efforts.

The ISDH will mail copies of lab reports and completed Confidential Reports of Communicable Disease forms (State Form #43823) to LHDs with a cover letter requesting follow-up. The hepatitis C case investigation form is available online at http://www.IN.gov/isdh/form/pdfs/52588_HepatitisC_May06revised.pdf. Public health nurses should complete the form as thoroughly as possible on newly identified acute and chronic hepatitis C cases and **fax the form to 317.233.9271**. Faxing the form will transmit the data directly into the hepatitis C database. For that reason, the ISDH requests that hard copies of completed investigation forms not be mailed. The ISDH Field Epidemiologists can provide assistance with case investigation and form completion.

Several LHDs have inquired about what should be faxed to the new database number (317.233.9271) and what should be faxed to the regular number (317.234.2812).

- **Only** the new 6-page investigation form should be faxed to the new database number, 317.233.9271.
- **All other forms**, including lab forms and Confidential Report of Communicable Disease forms, should be faxed to 317.234.2812.

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- Only one investigation needs to be completed per case. Any follow-up labs or reports received at the LHD after the case investigation has been completed should be faxed to 317.234.2812.

The ISDH requests that LHDs with large Department of Correction (DOC) facilities in their jurisdictions maintain lab reports on those cases. The ISDH is currently developing the protocol for follow-up of DOC cases.

The ISDH acknowledges the increased workload required to investigate chronic cases and appreciates the support for this surveillance initiative. Enhanced reporting and surveillance can help effectively target intervention and education for better control of hepatitis C. Health officials expect the number of hepatitis C cases to increase given the aging baby boomer population, popularity of tattoos*, growing prison population, and continued intravenous drug use. Indiana is among the three states that have taken this initiative, and Indiana can serve as an example to the rest of the country on methods to help control this silent epidemic.

If you have any questions regarding hepatitis C surveillance and reporting, please contact Mike Wilkinson at 317.234.2827 or mwilkins@isdh.IN.gov.

Hepatitis C Acute Case Definition (must meet all of the following):

- Discrete onset of symptoms, such as GI symptoms, dark urine, pale stool, and fatigue;
- Jaundice or elevated liver enzymes (serum levels must be 7 times upper limit of normal);
- Laboratory criteria:
 - HCV antibody positive by EIA with signal to cut off ratio ≥ 3.8 **OR**
 - Positive anti-HCV antibody test confirmed by RIBA **OR**
 - HCV RNA positive
 - Patient must also be negative for hepatitis A and hepatitis B virus

>80% of acute hepatitis C cases will not resolve or clear virus in six months.

Hepatitis C Chronic Case Definition:

- Have had HCV antibodies six months or longer
- Laboratory criteria:
 - HCV antibody positive by EIA with signal to cut off ratio ≥ 3.8 **OR**
 - Positive anti-HCV antibody test confirmed by RIBA **OR**
 - HCV RNA positive

>most are asymptomatic

>liver enzymes may be normal

>antibody and perhaps RNA will be positive

*Tattoos pose a risk for those who go to facilities where sanitary practices are not practiced, such as not replacing ink pots appropriately or not using sterilized needles.

Indiana Mumps Update

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As of June 16, the Indiana State Department of Health (ISDH) is reporting seven cases of mumps for 2006. Two of the cases are classified as confirmed, and five are classified as probable cases*. Both confirmed cases had parotid gland swelling onset in April.

*A **confirmed case** is 1) laboratory confirmed; or 2) meets the clinical case definition and is epidemiologically linked to a confirmed or probable case. A **probable case** meets the clinical case definition, has no laboratory confirmation, and is not epidemiologically linked to a confirmed or probable case. The clinical case definition for mumps is an illness with acute onset of unilateral or bilateral tender, self-limiting swelling of the parotid or other salivary gland lasting >2 days and without other apparent cause. For additional information on the typical physical findings and complications of mumps, visit the CDC Web site at

<http://www.cdc.gov/nip/diseases/mumps/faqs-phys-complic.htm>.

Numerous reports of suspected cases of mumps have been investigated by the ISDH Immunization staff this year. Since April 24, oral fluid and/or urine specimens have been collected and submitted for mumps analysis on 85 persons living in Indiana. Two (2%) of those 85 persons were confirmed as having mumps by RT-PCR analysis at the Centers for Disease Control and Prevention. The remaining 83 persons had negative PCR results. No outbreaks or clustering of confirmed, probable, or suspected cases have been identified in Indiana. In addition, none of the cases investigated by ISDH staff has a known direct link to a case from the multi-state outbreak, which began in Iowa and was recently featured in an MMWR Dispatch on May 18, 2006. The Dispatch can be found at:

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm55d518a1.htm>.

Based on the small number of laboratory-confirmed cases and lack of epidemiologically linked cases, it is felt that Indiana is not experiencing widespread mumps virus circulation or an outbreak environment.

Please note that serologic testing is not being used as laboratory evidence to confirm or rule out mumps cases in Indiana. For laboratory confirmation of the diagnosis of mumps, the ISDH recommends health care providers collect buccal swabs and/or urine specimens for viral culture and PCR testing. For additional information on laboratory collection of specimens for mumps analysis, please visit the ISDH Web site at <http://www.IN.gov/isdh/> or call the ISDH Laboratory at 317.233.8000.

Updated Recommendations of the Advisory Committee (ACIP) for the Control and Elimination of Mumps

In a special meeting held May 17, 2006, the ACIP updated criteria for mumps immunity and recommendations for mumps vaccination. You may review the updated recommendations in the Notice to Readers published by the MMWR on June 1, 2006, at:

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm55e601a1.htm>.

To avoid outbreaks such as the one which has occurred in Iowa, the ISDH will be incorporating these changes into immunization program policy in the next few months. In the meantime, all immunization providers, schools (K-12), post-high school education institutions, and health care facilities are strongly encouraged to implement these recommendations immediately. Although these recommendations will **not** become school or college entry requirements for the 2006-2007 year, the ISDH is requesting that schools and colleges identify students with only one dose of mumps vaccine, contact them or their parents, and encourage a second dose of mumps vaccine. We have provided a summary of the ACIP changes in the box below.

**SUMMARY OF CHANGES TO 1998 ACIP RECOMMENDATIONS ON MUMPS
MAY 17, 2006**

Acceptable Presumptive Evidence of Immunity

- Documentation of adequate vaccination is now two doses of mumps virus vaccine instead of one dose for:
 - School-aged children (i.e., grades K-12).
 - Adults at high risk (i.e., persons who work in health care facilities, students at post-high school educational institutions, and international travelers).

Routine Vaccination for Health Care Workers

- Persons born during or after 1957 without other evidence of immunity: two doses of a live mumps virus vaccine.
- Persons born before 1957 without other evidence of immunity: consider recommending one dose of live virus mumps vaccine.

For Outbreak Settings

- Children aged 1-4 years and adults at low risk: if affected by the outbreak, consider a second dose* of live mumps virus vaccine.
- Health care workers born before 1957 without other evidence of immunity: strongly consider recommending two doses of live mumps virus vaccine.

*Minimum interval between doses = 28 days

Reducing High Blood Pressure with Regular Physical Activity

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Syndromic Surveillance Epidemiologist

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According to 2003 data, over 30 percent of the adult population in the United States has high blood pressure. The proportion of adult women and men with high blood pressure is similar (32.8% and 31.5%, respectively).(1) Of particular concern is the disproportionately higher prevalence of high blood pressure among African Americans than other racial and ethnic groups. Additionally, adults of all races and ethnic backgrounds over the age of 60 experience

significantly higher rates of high blood pressure than the rest of the population.(2) Indiana statistics are similar, as 26.2 percent of Hoosier adults reported that they had been told by a doctor, nurse, or other health professional that they had high blood pressure. Also, the prevalence of high blood pressure in the state increased with age: 5.7 percent for adults ages 18-24, to 57.3 percent of adults ages 65 and older.(3)

Force, or pressure, is needed to move the blood through the body's arteries. The heart achieves this pressure through the muscular pump of its left ventricle. The left ventricle contracts and forces oxygen-rich blood through the arteries throughout the entire body. Normal blood pressure for adults is approximately 120/80. The top number (systolic) reflects the contraction phase of the left ventricle, when blood pressure is at its highest, while the bottom number (diastolic) is the left ventricle's relaxation phase. Blood pressure in adults is considered high if it is chronically greater than 140/90. Prior to the 1940s, the gradual increase in blood pressure observed in aging adults was considered typical and not a threat to optimal health. As we now know, chronically high blood pressure is strongly linked to heart disease, stroke, kidney failure, and other serious health issues.(2)

The good news, however, is that much clinical and epidemiologic research demonstrates that regular physical activity is an excellent way to prevent and/or reduce high blood pressure. Particularly encouraging, reductions in resting blood pressure can be realized within weeks of starting a regular aerobic exercise routine. For blood pressure reduction, the American College of Sports Medicine recommends 20-60 minutes of moderately intense aerobic exercise performed 3-5 times each week. Activities such as walking, swimming, group aerobics, and other low-to-moderate intensity exercises are great ways to prevent and reduce high blood pressure.(4)

A good rule of thumb for success when starting any physical activity routine is to begin at an easy level and gradually increase exercise time and intensity. Those with high blood pressure should avoid physical activity that requires vigorous effort, as it may increase personal health risk. Finally, always consult with a health care provider before beginning an exercise routine, particularly if you have been diagnosed with high blood pressure or other health concerns.

A healthy blood pressure can be a reality for many Hoosiers, and a moderate routine of physical activity can help achieve it.

References

1. American Heart Association, Heart Disease and Stroke Statistics–2006 Update, A Report from the American Heart Association Statistics Committee and Stroke Statistics Subcommittee, 2006.
2. Dishman R, Washburn R, Heath G, *Physical Activity Epidemiology*, Human Kinetics, 2004.
3. Behavioral Risk Factor Surveillance System, Indiana Statewide Survey Data, 2005.
4. Nieman D, *The Exercise-Health Connection*, Human Kinetics, 1998.





Training Room

Epi-Ready Training

The Indiana State Department of Health (ISDH) will conduct Epi-Ready training in June and July. Epi-Ready is a course designed by the National Environmental Health Association (NEHA) to train public health professionals to rapidly identify and investigate a foodborne disease outbreak and to implement control measures to reduce the incidence of foodborne illness. This training emphasizes the importance of teamwork when investigating a foodborne outbreak. As a result, the ISDH is encouraging team applications from the different public health disciplines (e.g., environmental health, public health nursing, laboratory, and epidemiology).

At the end of the training, participants will be able to:

- Describe the process of gathering data through passive surveillance.
- List criteria for beginning an outbreak investigation.
- Describe the purpose of an environmental assessment.
- Use epidemiologic study data to identify outbreak cause(s).
- List four steps for submitting samples to a laboratory for testing.
- Document and report the results of an outbreak investigation.
- Evaluate the similarities between incidental and intentional foodborne illness.

To register for either of the following Epi-Ready sessions, please contact Heather Vaughan, ISDH Consumer Specialist, at 317.233.7366 or hvaughan@isdh.IN.gov.

July 11-12, 8:30 a.m.-5:00 p.m.
Holiday Inn Conference Center
951 Wernsing Road, Jasper, IN 47546
812.482.5555

INDIANA STATE DEPARTMENT OF HEALTH IMMUNIZATION PROGRAM PRESENTS:

Immunizations from A to Z

Immunization Health Educators offer this FREE, one-day educational course that includes:

- Principles of Vaccination
- Childhood and Adolescent Vaccine-Preventable Diseases
- Adult Immunizations
 - Pandemic Influenza
- General Recommendations on Immunization
 - Timing and Spacing
 - Indiana Immunization Requirements
 - Administration Recommendations
 - Contraindications and Precautions to Vaccination
- Safe and Effective Vaccine Administration
- Vaccine Storage and Handling
- Vaccine Misconceptions
- Reliable Resources

This course is designed for all immunization providers and staff. Training manual, materials, and certificate of attendance are provided to all attendees. Please see the Training Calendar for presentations throughout Indiana. Registration is required. To attend, schedule/host a course in your area or for more information, please contact Angie Schick **317.460.3671** or aschick@isdh.IN.gov; or <http://www.IN.gov/isdh/programs/immunization.htm>

ISDH Data Reports Available

The ISDH Epidemiology Resource Center has the following data reports and the Indiana Epidemiology Newsletter available on the ISDH Web Page:

http://www.IN.gov/isdh/dataandstats/data_and_statistics.htm

HIV/STD Quarterly Reports (1998-Dec 05)	Indiana Mortality Report (1999, 2000, 2001, 2002, 2003)
Indiana Cancer Incidence Report (1990, 95, 96, 97, 98)	Indiana Infant Mortality Report (1999, 2002, 2003)
Indiana Cancer Mortality Report (1990-94, 1992-96)	Indiana Natality Report (1998, 99, 2000, 2001, 2002, 2003)
Combined Cancer Mortality and Incidence in Indiana Report (1999, 2000, 2001, 2002)	Indiana Induced Termination of Pregnancy Report (1998, 99, 2000, 2001, 2002, 2003, 2004)
Indiana Health Behavior Risk Factors (1999, 2000, 2001, 2002, 2003, 2004, 2005)	Indiana Marriage Report (1995, 97, 98, 99, 2000, 2001, 2002)
Indiana Health Behavior Risk Factors (BRFSS) Newsletter (9/2003, 10/2003, 6/2004, 9/2004, 4/2005, 7/2005, 12/2005, 1/2006)	Indiana Infectious Disease Report (1997, 98, 99, 2000, 2001, 2002)
Indiana Hospital Consumer Guide (1996)	Indiana Maternal & Child Health Outcomes & Performance Measures (1990-99, 1991-2000, 1992-2001, 1993-2002)
Public Hospital Discharge Data (1999, 2000, 2001, 2002, 2003, 2004)	

HIV Disease Summary

Information as of May 31, 2006 (based on 2000 population of 6,080,485)

HIV - without AIDS to date:

219	New HIV cases from June 2005 thru May 2006	12-month incidence	5.61 cases/100,000
3601	Total HIV-positive, alive and without AIDS on May 31, 2006	Point prevalence	59.51 cases/100,000

AIDS cases to date:

222	New AIDS cases from June 2005 thru May 2006	12-month incidence	6.07 cases/100,000
3,798	Total AIDS cases, alive on May 31, 2006	Point prevalence	63.14 cases/100,000
7,798	Total AIDS cases, cumulative (alive and dead)		

REPORTED CASES of selected notifiable diseases

Disease	Cases Reported in May MMWR Weeks 18-22		Cumulative Cases Reported January –May MMWR Weeks 1-22	
	2005	2006	2005	2006
Campylobacteriosis	35	40	113	143
Chlamydia	1,838	1,289	8,457	7,799
<i>E. coli</i> O157:H7	7	3	17	14
Hepatitis A	3	8	8	16
Hepatitis B	3	5	10	15
Invasive Drug Resistant <i>S. pneumoniae</i> (DRSP)	34	20	111	81
Invasive pneumococcal (less than 5 years of age)	9	7	32	30
Gonorrhea	760	487	3,324	3,304
Legionellosis	1	0	8	2
Lyme Disease	0	0	2	3
Measles	0	0	0	1
Meningococcal, invasive	1	2	8	10
Mumps	0	5	0	6
Pertussis	29	28	142	81
Rocky Mountain Spotted Fever	0	1	0	1
Salmonellosis	74	59	167	200
Shigellosis	7	12	39	54
Syphilis (Primary and Secondary)	12	5	31	29
Tuberculosis	12	13	54	52
Animal Rabies	1 (bat)	3 (bats)	3 (bats)	3 (bats)

For information on reporting of communicable diseases in Indiana, call the *Epidemiology Resource Center* at (317) 233-7125.



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